

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 05-128153

(43)Date of publication of application : 25.05.1993

(51)Int.Cl.

G06F 15/40  
G06F 15/40

(21)Application number : 03-289930

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(22)Date of filing : 06.11.1991

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## (54) INFORMATION RETRIEVAL SYSTEM

### (57)Abstract:

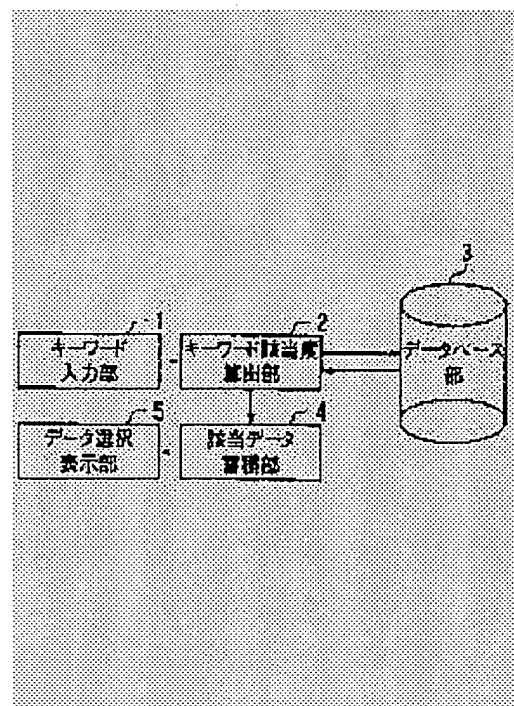
PURPOSE: To provide a system which permits a user to retrieve desired data.

CONSTITUTION: A data base part 3 which stores plural data having a key word and a key word input part 1

where the key word for retrieving desired data from the data base part, the first number indicating the necessity for that key word and the second number indicating sufficiency of that key word are inputted, are provided.

Further, a key word correspondence degree calculating part 2 which, receiving the output from the key word input part 1 and also receiving the signal from the data base part 3, calculates a key word correspondence degree which indicates how much degree respective data conform to inputs, based upon the first and the second numbers, and which reads and outputs the data corresponding to the key word

correspondence degree out of the data base part 3 is provided. In addition, a correspondence data accumulating part 4 which receives the output from the key word correspondence degree calculating part 2 and stores key word correspondence degree and the data corresponding to it and a data selection display part 5 which reads and displays the data corresponding to key word correspondence degree, in the order with the data having the highest correspondence degree at the first, out of the correspondence data accumulating part 4 are provided.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

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DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Industrial Application] This invention relates to the information retrieval equipment applied when extracting the data of a user request from a database.

[0002]

[Description of the Prior Art] Conventionally, a user inputs a keyword. It was performed by retrieval (generally called AND retrieval) of the information which has those all, retrieval (OR retrieval) of the information which has any one, or such combination when two or more keywords existed.

[0003]

[Problem(s) to be Solved by the Invention] Since it does not have only one keyword, even if it has all other keywords in the above-mentioned conventional AND retrieval, the information which is not retrieved comes to exist. On the other hand, in OR retrieval, the information retrieved increases too much and the searched semantics may be lost.

[0004] Even if it took which search method, there was a fault that each importance of each keyword was not reflected.

[0005]

[Means for Solving the Problem] This invention adopts the following means in order to solve the above-mentioned technical problem.

[0006] Namely, the database section which stores two or more data which have a keyword as information retrieval equipment, The keyword input section into which the 1st number which shows the need for the keyword for searching desired data from this database section and this keyword, and the 2nd number which shows the sufficiency of this keyword are inputted, While computing whenever [ used as the index of how many / the above-mentioned input and / each above-mentioned data have agreed based on the 1st and 2nd numbers of the above by receiving the signal from the output and the above-mentioned database section from this keyword input section / keyword relevance ] When whenever [ this keyword relevance ] is beyond a predetermined value, whenever [ keyword relevance / which reads the data corresponding to whenever / this keyword relevance / from the above-mentioned database section, and outputs them ] The calculation section, The applicable data accumulation section which undergoes the output of the calculation section whenever [ this keyword relevance ], and stores the data corresponding to whenever [ this keyword relevance ], and it, The data selection display which reads and displays the data corresponding to whenever [ this keyword relevance ] on descending of whenever [ above-mentioned keyword relevance ] from this applicable data accumulation section is prepared.

[0007]

[Function] In the above-mentioned means, when a user wants to search desired data, a user inputs into the keyword input section the 1st number which shows the need for the keyword for searching desired data, and this keyword, and the 2nd number which shows the sufficiency of this keyword. The keyword input section sends the input to the calculation section whenever [ keyword relevance ]. Whenever

[ keyword relevance ], the calculation section reads the data corresponding to whenever [ this keyword relevance ] from the database section, and outputs them while it computes whenever [ used as the index of how many / an input and / each data of the database section have agreed based on the 1st and 2nd number of inputs / keyword relevance ]. Whenever [ applicable ], the recording section undergoes the output of the calculation section whenever [ keyword relevance ], and stores the data corresponding to whenever [ keyword relevance ], and it. Moreover, a selection display reads and displays the data corresponding to whenever [ keyword relevance ] on descending of whenever [ keyword relevance ] from the applicable data accumulation section.

[0008] Since data come to be read and displayed on the high order of whenever [ showing how many each data / the keyword of the data for which the user is asking as mentioned above, and / have agreed / keyword relevance ], it is efficient.

[0009]

[Example] Drawing 1 - drawing 4 explain one example of this invention.

[0010] In drawing 1, the output of the keyword input section 1 is sent to the calculation section 2 whenever [ keyword relevance ]. Moreover, the calculation section is connected with the database section 3 whenever [ keyword relevance ]. Furthermore, the output of the calculation section 2 is sent to the data selection display 5 through the applicable data accumulation section 4 whenever [ keyword relevance ].

[0011] Data D1 - data D6 which are shown [ the database section 3 ] above at drawing 3. And suppose that the keyword is stored. Moreover, a user inputs into the keyword input section 1 1st number of X values which shows the need for a keyword as shown in drawing 4 in order to search desired data for example, and this keyword, and a number of Y values which show the sufficiency of this keyword one by one. Then, these are sent to the calculation section 2 whenever [ keyword relevance ]. The calculation section 2 computes [ whenever / keyword relevance ] S whenever [ keyword relevance / from which each data serves as an index of how much to have agreed to desired data by the formula (1) ].

[0012]

$$S=S+(1-P) X+PY \dots\dots\dots (1)$$

The initial value of S is 0, and when a keyword exists and P= 1 keyword does not exist, it is set to P= 0 here.

[0013] Then, each data D1 - D6 It receives and becomes like following formula (2) - (7), respectively.

[0014]

$$S1 =-100+200+200=300 \dots\dots\dots (2)$$

$$S2 =-100+200-200=-100 \dots\dots\dots (3)$$

$$S3 =100+200-200=100 \dots\dots\dots (4)$$

$$S4 =100+0-200=-100 \dots\dots\dots (5)$$

$$S5 =-100+200-200=-100 \dots\dots\dots (6)$$

$$S6 =100+0-200=-100 \dots\dots\dots (7)$$

Next, the calculation section 2 is the data D1 of S1 =300 with which S becomes forward, and the data D3 of S3 =100 whenever [ keyword relevance ]. It calls from the database section 1 and sends to the applicable data accumulation section 4. The applicable data accumulation section 4 carries out sequential storing of the S value of an input, and the data corresponding to it. Furthermore, the data selection display 5 reads and displays the data corresponding to it on descending of S value from the applicable data accumulation section 4.

[0015] The above processing flow is shown in drawing 2. Since data come to be read and displayed on the high order of S whenever [ showing how many each data / the keyword of the data for which the user is asking as mentioned above, and / have agreed / keyword relevance ], it is efficient. Moreover, according to this equipment, information is not eliminated by lack of a small number of keyword. By choosing the value of X and Y appropriately still as mentioned above, the importance of each keyword can set up according to an individual, and can take the weight of a keyword into consideration.

[0016] When the data incidentally shown in drawing 3 are performed by AND retrieval, it is retrieval data =0 and they are all the data D1 - D6 by OR retrieval. A result searched is brought.

[0017]

[Effect of the Invention] As explained above, this invention does the following effectiveness so.

- (1) By choosing the 1st and 2nd numbers appropriately, the importance of each keyword is set up according to an individual, and data are searched by descending of whenever [ keyword relevance / which shows whenever / agreement / with the information on a user request that the weight of a keyword was taken into consideration ].
- (2) Information is not eliminated by lack of a small number of keyword.
- (3) Each data is displayed [ whether it is close to the information which a user desires how, and ] quantitatively numerically.

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[Translation done.]

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**DESCRIPTION OF DRAWINGS**

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[Brief Description of the Drawings]

[Drawing 1] Drawing 1 is the configuration block Fig. of one example of this invention.

[Drawing 2] Drawing 2 is the processing flow Fig. of this example.

[Drawing 3] Drawing 3 is the operation explanatory view of this example.

[Drawing 4] Drawing 4 is the operation explanatory view of this example.

[Description of Notations]

1 Keyword Input Section

2 It is Calculation Section whenever [ Keyword Relevance ].

3 Database Section

4 Applicable Data Accumulation Section

5 Data Selection Display

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[Translation done.]

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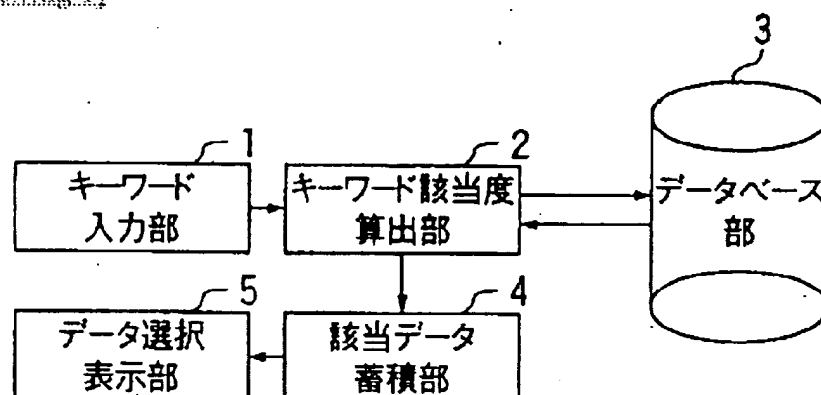
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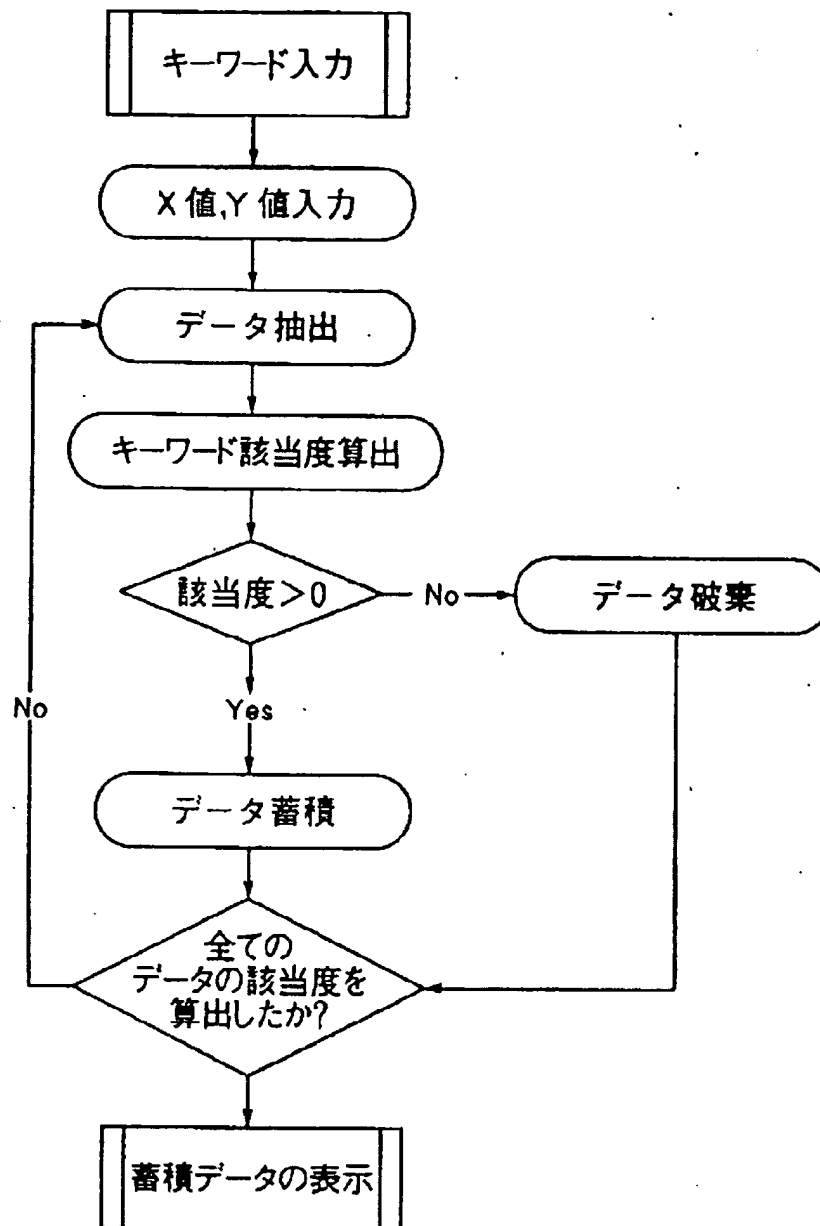
DRAWINGS

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[Drawing 1]



[Drawing 2]



[Drawing 3]

データ : D1 キーワード B,C,E	データ : D2 キーワード B	データ : D3 キーワード A,B
データ : D4 キーワード A,E	データ : D5 キーワード B,F	データ : D6 キーワード A

[Drawing 4]



キーワード	X 値	Y 値
A	-100	100
B	0	200
C	-200	200

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[Translation done.]